Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	186	(712/238).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2006/04/17 15:37
L2	278	(712/237).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2006/04/17 15:37
L3	4	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3)).clm.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2006/04/17 15:38
L4	1	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3)).clm.	US-PGPUB	OR	OFF	2006/04/17 15:38
L5	1	(vliw with (branch with (slot\$1 or entr\$3))).clm.	US-PGPUB	OR	OFF	2006/04/17 15:41
L6	. 1	(vliw same (branch same ((slot\$1 or entr\$3) with ((instruction\$1 or prefetch\$3) with (buffer\$1 or cache\$1))))).clm.	US-PGPUB	OR	OFF	2006/04/17 15:41
L7	2	((branch\$3 same ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 with stall\$3)).clm.	US-PGPUB	OR	OFF	2006/04/17 15:41
L8	2	((branch\$3 same ((target or address or location) same (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 same stall\$3)).clm.	US-PGPUB	OR	OFF	2006/04/17 15:41
L9	22	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2006/04/17 15:38
L10	7	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3))	US-PGPUB	OR	OFF	2006/04/17 15:39
L11	3	(vliw with (branch with (slot\$1 or entr\$3)))	US-PGPUB	OR	OFF	2006/04/17 15:41
L12	1	(vliw same (branch same ((slot\$1 or entr\$3) with ((instruction\$1 or prefetch\$3) with (buffer\$1 or cache\$1)))))	US-PGPUB	OR	OFF	2006/04/17 15:41

L13	20	((branch\$3 same ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 with stall\$3))	US-PGPUB	OR	OFF	2006/04/17 15:41
L14	51	((branch\$3 same ((target or address or location) same (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 same stall\$3))	US-PGPUB	OR	OFF	2006/04/17 15:41
S1	167	(712/238).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 07:56
S2	252	(712/237).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/04/29 15:29
S3	2	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3))) near4 (pipelin\$3 near4 stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:06
S4	20	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 near4 stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:31
S5	3	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 near4 stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/04/29 15:37
S6	173	(712/238).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:05
<b>S7</b>	257	(712/237).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:05
S8	5	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 near4 stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:06
S9	17	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3))) with (stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:06
S10	1	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3)) near4 (allocat\$3 or assign\$3 or mak\$3 or creat\$3)) with (stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:07

S11	2	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3)) near4 (allocat\$3 or assign\$3 or mak\$3 or creat\$3)) same (stall\$3)	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:08
S12	89	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3)) near4 (allocat\$3 or assign\$3 or mak\$3 or creat\$3))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:08
S13	1	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3)) near4 (allocat\$3 or assign\$3 or mak\$3 or creat\$3)) with (prefetch\$3 adj1 (buffer\$1 or cach\$3 or memor\$3))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:10
S14	4	(branch\$3 near4 ((target or address or location) adj2 (buffer\$1 or cache\$1 or tabl\$3)) near4 (allocat\$3 or assign\$3 or mak\$3 or creat\$3)) same (prefetch\$3 adj1 (buffer\$1 or cach\$3 or memor\$3))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/12 14:10
S15		(prefetch\$3 near4 buffer\$3) near4 ((branch\$3 or jump\$3) near4 (slot\$1 or entr\$3 or position\$1 or area\$1))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 08:05
S16	12	(prefetch\$3 near4 buffer\$3) with ((branch\$3 or jump\$3) near4 (slot\$1 or entr\$3 or position\$1 or area\$1))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 08:07
S17	47	(prefetch\$3 near4 buffer\$3) same ((branch\$3 or jump\$3) near4 (slot\$1 or entr\$3 or position\$1 or area\$1))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 08:09
S18	9	vliw near4 (branch near4 (slot\$1 or entr\$3))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:32
S19	1	vliw with (branch near4 (slot\$1 or entr\$3) near4 ((instruction\$1 or prefetch\$3) near4 (buffer\$1 or cache\$1)))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 10:37
S20	1	vliw same (branch near4 (slot\$1 or entr\$3) near4 ((instruction\$1 or prefetch\$3) near4 (buffer\$1 or cache\$1)))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 10:37
S21	1	vliw same (branch with ((slot\$1 or entr\$3) near4 ((instruction\$1 or prefetch\$3) near4 (buffer\$1 or cache\$1))))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 10:38

S22	1	vliw same (branch same ((slot\$1 or entr\$3) near4 ((instruction\$1 or prefetch\$3) near4 (buffer\$1 or cache\$1))))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 10:38
S23	2	vliw same (branch same ((slot\$1 or entr\$3) with ((instruction\$1 or prefetch\$3) with (buffer\$1 or cache\$1))))	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:33
S24	2	(("6154833") or ("5996071")).PN.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 10:59
S25	174	(712/238).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 11:06
S26	257	(712/237).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/07/25 11:06
S27	7	(US-5701448-\$ or US-5835754-\$ or US-6216219-\$ or US-6308322-\$ or US-6157988-\$ or US-6029228-\$ or US-5909566-\$).did.	USPAT	OR	OFF	2005/07/25 12:03
S28	183	(712/238).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:27
S29	271	(712/237).CCLS.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:27
S30	5	(("5477640") or ("6308322") or ("6157988") or ("5909566") or ("5701448")).PN.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:28
S31	5	(("6477640") or ("6308322") or ("6157988") or ("5909566") or ("5701448")).PN.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:28
S32	4	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3)).clm.	US-PGPUB; USPAT; EPO; JPO; IBM_TDB	OR	OFF	2005/12/21 15:32
S33	1	((branch\$3 with ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) with (pipelin\$3 with stall\$3)).clm.	US-PGPUB	OR	OFF	2005/12/21 15:33

S34	1	(vliw with (branch with (slot\$1 or entr\$3))).clm.	US-PGPUB	OR	OFF	2005/12/21 15:33
S35	1	(vliw same (branch same ((slot\$1 or entr\$3) with ((instruction\$1 or prefetch\$3) with (buffer\$1 or cache\$1))))).clm.	US-PGPUB	OR	OFF	2005/12/21 15:33
S36	2	((branch\$3 same ((target or address or location) with (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 with stall\$3)).clm.	US-PGPUB	OR	OFF	2005/12/21 15:34
S37	2	((branch\$3 same ((target or address or location) same (buffer\$1 or cache\$1 or tabl\$3))) same (pipelin\$3 same stall\$3)).clm.	US-PGPUB	OR	OFF	2005/12/21 15:34



### Scholar Results 1 - 10 of about 381 for branch prediction + prefetch buffer + slot. (2.33 seconds)

#### Reducing the Branch Penalty in Pipelined Processors - group of 6 »

DJ Lilja - IEEE Computer, 1988 - doi.ieeecomputersociety.org

... costs, and the real performance cost of an incorrect **prediction**. **Branch** target **buffer** ... prefetched from the sequential instruction stream into a **prefetch buffer**. ... Cited by 54 - Web Search

### AMULET3 Revealed - group of 7 »

JD Garside, SB Furber, SH Chung - target - doi.ieeecs.org

... Thumb instruction at the lower address) **prediction** because this ... not be accepted immediately by the **prefetch** unit and instructions in the **branch** shadow must ... <u>Cited by 38</u> - <u>Web Search</u>

#### POWER4 system microarchitecture - group of 45 »

JM Tendler, JS Dodson, JS Fields, H Le, B Sinharoy - IBM JOURNAL OF RESEARCH AND DEVELOPMENT, 2002 - research.ibm.com

... Using the **branch-prediction** logic, the IFAR is reloaded and ... are stored in the instruction-**prefetch buffer** so that ... oldest instruction is placed in **slot** 0, the ... <u>Cited by 170 - Cached - Web Search - BL Direct</u>

# An Evaluation of Branch Architectures - group of 2 »

JA DeRosa, HM Levy - ISCA, 1987 - portal.acm.org

... performance im- provement such as **branch prediction** and prefetching. ... the **branch**-taken and **branch**-not-taken ... With the second **prefetch buffer**, the one-instruction ... Cited by 27 - Web Search

#### Portable Execution Time Analysis for RISC Processors - group of 3 »

K Narasimhan, KD Nilsen - ACM SIGPLAN Workshop on Language, Compiler and Tool Support ..., 1994 - cc.gatech.edu

... among the analytical timing **prediction** schemes that ... point Unit (FPU) and **Branch** Processing Unit ... in the four-**slot** instruction **prefetch buffer** leapfrogs directly ... <u>Cited by 30 - View as HTML - Web Search</u>

#### Branch target buffer design and optimization - group of 5 »

CH Perleberg, AJ Smith - IEEE Transactions on Computers, 1993 - ieeexplore.ieee.org ... the penalty of a wrong **branch prediction**, both paths of ... the occurrence of still another **branch** before a ... **Prefetch Branch** Target: Most computers follow the fall ... Cited by 82 - Web Search - Library Search - BL Direct

## Advanced Performance Features of the 64-bit PA-8000 - group of 5 »

D Hunt - COMPCON, 1995 - ieeexplore.ieee.org

... while programs which have not been profiled use dynamic **prediction**. ... cycle in the rare event of a mis- predicted **branch**. ... with a **slot** of the memory **buffer** in the ... <u>Cited by 106</u> - <u>Web Search</u> - <u>BL Direct</u>

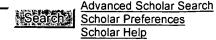
# Hardware support for hiding cache latency - group of 3 »

M Golden, TN Mudge - 1993 - eecs.umich.edu

... Imperfect branch prediction could decrease performance because the ... from an instruction



branch prediction + prefetch buffer + entry



### Scholar Results 1 - 10 of about 1,110 for branch prediction + prefetch buffer + entry. (2.49 seconds)

#### An effective on-chip preloading scheme to reduce data access penalty - group of 3 »

JL Baer, TF Chen - SC, 1991 - portal.acm.org

... If some form of **branch prediction** mechanism is ... "ahead" of the functional stream and hence **prefetch** ... based on sequentiality (OBL, I-stream **buffer**) can be ... Cited by 219 - Web Search - Library Search

### Reducing Memory Latency via Non-blocking and F% efetching Caches - group of 7 »

TF Chen, JL Baer - portal.acm.org

... bytes data cache[I]. **Branch prediction** is performed ... two- bit state transition **Branch** Target **Buffer** ... tech- niques, including prefetching caches (**PREFETCH**), write ... <u>Cited by 154</u> - <u>Web Search</u> - <u>Library Search</u> - <u>BL Direct</u>

#### POWER4 system microarchitecture - group of 45 »

JM Tendler, JS Dodson, JS Fields, H Le, B Sinharoy - IBM JOURNAL OF RESEARCH AND DEVELOPMENT, 2002 - research.ibm.com

... earlier, for cases in which the **branch-prediction** logic is in error, the **branch-execution** unit ... into one **entry** of the instruction-**prefetch buffer** so that the ...

Cited by 170 - Cached - Web Search - BL Direct

#### Reducing the Branch Penalty in Pipelined Processors - group of 6 »

DJ Lilja - IEEE Computer, 1988 - doi.ieeecomputersociety.org

... and the real performance cost of an incorrect **prediction**. ... When a nonsequential **branch** occurs, however, the required ... most likely is not in the **prefetch buffer**. ... <u>Cited by 54</u> - <u>Web Search</u>

#### Data prefetch mechanisms - group of 9 »

SP Vanderwiel, DJ Lilja - ACM Computing Surveys, 2000 - portal.acm.org
Page 1. Data **Prefetch** Mechanisms ... Many of these cache misses can be avoided if we augment the demand fetch policy of the cache with a data **prefetch** operation. ...
Cited by 68 - Web Search - BL Direct

#### Two Techniques to Enhance the Performance of Memory Consistency Models - group of 4 »

K Gharachorloo, A Gupta, JL Hennessy - ICPP (1), 1991 - csl.cornell.edu

... can be retired from this **buffer** as fast ... that has dynamic scheduling and **branch prediction** capability. As with **prefetch**- ing, the speculative technique also ...

Cited by 92 - View as HTML - Web Search

#### Predictor-directed stream buffers - group of 18 »

T Sherwood, S Sair, B Calder - MICRO-ANNUAL WORKSHOP THEN ANNUAL INTERNATIONAL SYMPOSIUM-, 2000 - portal.acm.org

... This is accomplished by decoupling the **branch** predictor from the instruction cache with a ... stream **buffer entry** is freed for a new **prediction** and **prefetch**. ... Cited by 48 - Web Search - BL Direct

#### Dead-block prediction & dead-block correlating prefetchers - group of 15 »

AC Lai, C Fide, B Falsafi - ACM SIGARCH Computer Architecture News, 2001 - doi.ieeecomputersociety.org

... Much as two-level **branch** predictors, the miss address ... an L1 miss incurring high **prefetch** hit latency. ... correlation alone results in low **prediction** accuracy and ...



branch prediction + prefetch buffer + location | Search

Advanced Scholar Search Scholar Preferences Scholar Help

### Scholar Results 1 - 10 of about 744 for branch prediction + prefetch buffer + location. (2.23 seconds)

#### Reducing the **Branch** Penalty in Pipelined Processors - group of 6 »

DJ Lilja - IEEE Computer, 1988 - doi.ieeecomputersociety.org

... costs, and the real performance cost of an incorrect prediction. Branch target buffer ... prefetched from the sequential instruction stream into a prefetch buffer. ... Cited by 54 - Web Search

#### Single instruction stream parallelism is greater than two - group of 5 »

M Butler, TY Yeh, Y Patt, M Alsup, H Scales, M ... - ACM SIGARCH Computer Architecture News, 1991 portal.acm.org

... niscient, branch prediction and unbounded functional units, is not realizable. Nonetheless several variations of the RDF model are interesting to study. ...

Cited by 109 - Web Search

#### An effective on-chip preloading scheme to reduce data access penalty - group of 3 »

JL Baer, TF Chen - SC, 1991 - portal.acm.org

... If some form of branch prediction mechanism is ... "ahead" of the functional stream and hence prefetch ... based on sequentiality (OBL, I-stream buffer) can be ...

Cited by 219 - Web Search - Library Search

#### AMULET3 Revealed - group of 7 »

JD Garside, SB Furber, SH Chung - target - doi.ieeecs.org

... Thumb instruction at the lower address) prediction because this ... not be accepted immediately by the prefetch unit and instructions in the branch shadow must ... Cited by 38 - Web Search

#### Two Techniques to Enhance the Performance of Memory Consistency Models - group of 4 »

K Gharachorloo, A Gupta, JL Hennessy - ICPP (1), 1991 - csl.cornell.edu

... can be retired from this buffer as fast ... beneficial for hardware-controlled prefetch schemes. ... Branch prediction techniques that allow execution of instructions ...

Cited by 92 - View as HTML - Web Search

#### [PS] Speculative Execution via Address **Prediction** and Data Prefetching - group of 14 »

J Gonzalez, A Gonzalez - International Conference on Supercomputing, 1997 - ac.upc.edu

... request buffer that will keep prefetch request until a memory port is available.

Effe. Add. Stride SHB Value V DR DI + Value OK? ... Branch prediction is ...

Cited by 91 - View as HTML - Web Search

#### POWER4 system microarchitecture - group of 45 »

JM Tendler, JS Dodson, JS Fields, H Le, B Sinharoy - IBM JOURNAL OF RESEARCH AND DEVELOPMENT, 2002 - research.ibm.com

... lines are stored in the instruction-prefetch buffer so that ... a store to the memory location from another ... to the instruction-fetching and branch-prediction cycles ... Cited by 170 - Cached - Web Search - BL Direct

# Characterization of database access pattern for analytic prediction of buffer hit probability -

A Dan, PS Yu, JY Chung - The VLDB Journal The International Journal on Very Large ..., 1995 - Springer ... Therefore, each branch record is accessed more often ... components for use in future buffer hit prediction ... a large enough NT to avoid substantial false prefetch ...